

Notice of Allowability

Application No.

10/787,220

Examiner

Anjan K. Deb

Applicant(s)

SKINNER, CHARLES H.

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/14/2005.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This office action is in response to amendment filed 11/14/2005.

Allowable Subject Matter

2. Claims 1-8 are allowed.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

The instant invention is deemed to be non-obvious improvement over the inventions patented in US Patent Number 5,457,396 A, issued to Mori et al., and US Patent Number 6,043,639 A, issued to Arrowsmith et al., the improvement comprises an electrically nonconducting substrate which supports a grid and wherein said substrate is mounted on a specified, possibly isolated, fixed surface to detect a presence of conducting dust particles which have settled on said surface, a power supply which is electrically coupled to said grid and which is sized to provide voltage sufficient to vaporize dust particle bridge and a means for detecting an electrical change or a short across grid tracings where said electrical change or short indicates the presence of electrically conducting dust particles on said surface in combination with remaining claims limitations. While Mori et al. (US 5,457,396 A)(cited previously) disclosed apparatus for detecting dust (particle detecting) comprising an electrically conducting detection grid and electrically nonconducting substrate which supports said grid it did not disclose a power

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supply which is sized to provide voltage sufficient to vaporize dust particle bridge. Arrowsmith (US 6,043,639) discloses apparatus and method of detecting conducting dust particles (airborne conductive contaminants) comprising voltage source providing sufficient current to vaporize conducting dust particles between two screen meshes 14, 16 (column 5 lines 25-45)(Fig. 2,3).

Arrowsmith did not disclose electrically nonconducting substrate, which supports a grid to detect a presence of conducting dust particles, which have settled on said surface. In the opinion of the examiner it would not have been obvious for one of ordinary skill in the art to modify Mori by adding a voltage supply which is sized to provide voltage sufficient to vaporize the dust particle bridge as disclosed by Arrowsmith to arrive at the claimed invention.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Molnar (US 6,859,024 B2) discloses apparatus for detecting electrically conductive particle comprising detection grid having alternate set of conductors and destroying the particles by applying a voltage when it creates a conductive path between the conductors.

Babb (US 6,664,492 B1) discloses method and apparatus 11 for eliminating electrically conductive particles from an air stream wherein electrically conductive particles are preferably oxidized or burned upon contact with electrical grid 11 comprising electrodes 14,15,16,17 (Fig. 2,3).

Gourdine et al. (US 3,718,029 A) discloses electrostatic dust monitor comprising electrodes wherein charged particles are collected on a dielectric surface (substrate) and accumulated charge on the dielectric surface is measured.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached at 571-272-2399.



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1/19/06

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